Science Project Rules

_____ Elementary is hosting a Science Expo on _____ to show off some of the terrific work our students are doing in the sciences. Science projects should be one of the most fun activities of the school year because they give children a chance to use their hands, imagination, and creativity, all of which are the learning tools they utilize most. All students are encouraged to present a science project. This sheet describes the rules and requirements for the Expo.

The Science Expo will be conducted much like a traditional Science Fair, except that there will be no judging (that is, no awarding of 1st, 2nd, 3rd places). Students are encouraged to enter a science project in their particular field of interest. These projects may be presented by an individual student, by a small group of students working together, or by an entire class. The students will be interviewed with their projects during the day on April 26; that same night, there will be an open house so parents, families, and friends can view the projects.

There are four types of science projects from which to choose:

1. **Experiment** -- The traditional science project using the **scientific method**: question, hypothesis, procedure, results, conclusion. Display and report your experiment clearly and legibly. Your teacher will be given a sheet entitled "How to Do a Science Experiment" if you need more information.

2. **Invention** – Create/improve an invention to do some task. A working model is preferable, but the project must have a well-defined purpose, a well-done illustration or model showing how it works, and a clearly written explanation. The approach to developing an invention is very similar to the scientific method.

3. **Model/Demonstration** -- A model illustrates how a scientific process works (examples might include an erupting volcano or a solar system). Models should be in fields of science and technology. The display and report should include descriptions of the scientific idea being modeled, how the model was constructed, and, preferably, the working model itself.

4. **Collections** -- Collections are particularly useful when they separate things into categories (butterfly wing colors, where different rocks were collected from, etc.). Collections should be in science/technology fields (no toys, sports cards, etc.). They must include easy-to-read labeling and written information.

Students who wish to participate in this year's Science Expo must fill out and return the slip at the bottom of this sheet to his/her teacher by Friday, March 31, 2000. The students are encouraged to complete these as early as possible to allow plenty of time to work on their projects

RULES: These are the do's and don'ts that everyone has to obey for a successful Science Expo. The following exhibit rules apply to project content and presentations (taken from the APS Elementary Science Fair Regulations):

EXHIBIT SIZE: The size of a project display shall be limited to the following maximum dimensions: 30 inches front to back, 48 inches left to right, and 108 inches floor to top (this includes 30 inches for a table).

I plan to present a project at the Science Expo

Student(s) name:_____

Teacher: _____

Check type of project: ( ) Experiment ( ) Invention ( ) Model/demonstration ( ) Collection

Topic of Project:

Please turn this slip into your teacher by _____ (Teachers, please give the returned slips to _____ by _____, so that we can plan the required set-up for the projects.)

ANIMAL EXPERIMENTS

Vertebrate animals may be used in benign behavior experiments (mice in a maze, etc.). Students doing experiments with or on live vertebrate animals will need a signed statement by a teacher or veterinarian indicating that the animals have been treated in a humane manner. This statement must accompany the project. No live animals, preserved vertebrate animals or parts including embryos, may be exhibited. Research involving the use of animals may display

photographs, drawings, charts, or graphs to illustrate the methods and results of the investigations.

SAFETY

Anything which could be hazardous to the public is prohibited in the display. This includes:

- microbial (bacteria, viruses) cultures and fungi, live or dead
- any flames, open or concealed
- highly flammable materials
- dangerous chemicals including caustics and strong acids
- operation of Class III or IV lasers

Additional requirements include:

- any exhibit producing temperatures above 212°F (100°C) must be adequately insulated from its surroundings
- batteries with open top cells are not permitted; other types may be used
- high voltage equipment (above 12 volts d.c.), large vacuum tubes or dangerous ray-generating devices must be properly shielded.

Other rules which apply to the presentations

- **Written reports** should accompany the exhibits. They need not be long; in fact, a one page report might be just right for some projects. Reports should include the title and author(s), purpose of the project (why was it done?), methods (what did you do?), results (what happened?), and conclusions (what did you learn?).
- **Oral presentations** of the projects will be made by the students at two times: during the school day on April 26 to volunteer "judges," who will offer interview the children and

offer feedback; and at the open house that night to parents, other students, and anyone else who is interested.

- **Obligatory legal stuff**: The school is not responsible for security of your project equipment and display during the expo (you know we had to put that in!).

The most important reason for doing a science project is to HAVE SOME FUN!!! The school and city libraries have several books with many science project ideas; if those resources are not satisfactory, call _____ for additional sources of ideas.

NOTE TO PARENTS: Science projects are a great activity for students and parents to work on together. However, it is easy to fall to the temptation to do the project for your child, or to create an exhibit worthy of presentation to the National Science Foundation. Please let your child do as much of the work as possible for him/herself. This includes setting up the experiment, building the model, drawing the graphs, and writing the report. If this project provides a good opportunity to use a computer for word processing or drawing pictures, that's great. Just be sure to let the science project be a learning experience for your child. No college scholarships will be awarded at this year's expo, so there is no need to get overly ambitious!